

LOS INSECTOS DE LAS ISLAS JUAN FERNANDEZ

17. DOLICHOPODIDAE (Diptera)

F. C. HARMSTON
Plainview, Texas

Son cuatro las especies de Dolichopodidae presentes en Juan Fernández, una común a Chile continental, dos nuevas para las ciencias y la cuarta incompletamente determinada por falta de ejemplares machos. Todas las especies se relacionan de cerca con la fauna de Chile.

* * *

Flies of the family Dolichopodidae have not heretofore been recorded from the Chilean islands of the Juan Fernández group. For this reason it gave me a great deal of pleasure to study a collection of Dolichopodidae taken by Rev. G. Kuschel in these Islands during 1951 and 1952.

The collection is represented by 182 specimens, and includes four species. Two of these are herein described as new, one represents a species previously described from the Chilean mainland, and one is represented by females only and is not specifically identifiable.

The types, allotypes, and a share of the paratypes are being returned to Rev. Kuschel for deposit in the collection of the Universidad de Chile at Santiago. Paratypes also are being deposited in the insect collection of the U. S. National Museum, and in the collection of the writer.

Hydrophorus kuscheli n. sp.

Male.—Length, 3 mm., wing 3,5 mm. Face and front yellowish-brown, appearing golden when viewed obliquely, the foramen narrowest slightly below the antennae, where its width equals the width of middle tibia, the lower portion slightly wider and with rounded apex. Palpi concolorous with face, the anterior surfaces with delicate pale cilia. Cheeks narrow, barely perceptible below the lower edge of the eyes. Upper postorbital cilia black, descending slightly below the middle of the eye, the lateral cilia and whiskers silvery. Antennae black; third segment slightly longer than wide, the tip rounded. Arista inserted near the middle of third segment.

Dorsum of thorax brownish-black, nearly opaque, lightly dusted with yellowish-brown pollen; scutellum concolorous with metanotum, and with two large marginal bristles. Acrostical bristles small, in a single row; dorsocentrals forming two rows of prominent bristles, each row with six bristles; propleura with a number of delicate pale cilia, and two or three prominent pale bristles inserted above the base of fore coxae. Immediately in front of the halteres the metapleurae bear a few delicate black cilia, and a single prominent, black bristle. Pleurae grayish pollinose. Abdomen concolorous with the metanotum, the lateral portions grayish pollinose. Hypopygium embedded; outer appendages but little exposed, yellow, their surfaces with delicate pale cilia.

Front coxae yellow, their anterior surfaces clothed with pale hairs which are larger and bristle-like along the outer edges. Outer surface of middle concolorous with pleurae; the hind coxae yellow. All femora and tibiae yellow, the upper surface of the front and hind femora slightly infuscated. Fore femora thickened at base, with two rows of prominent black bristles along lower edges, those in the outer row being much longer. Middle and hind femora of plain structure, slender, each with three (some specimens have four) evenly, and widely spaced, preapical bristles, but without prominent hairs or bristles on the lower edges. Fore tibiae beset with numerous short, black bristles on lower surface, a single prominent bristle on anterior surface near basal third, and a slightly longer bristle near the tip on inner edge. Middle and hind tibiae with prominent, evenly-spaced bristles on posterior surfaces. All tarsal segments brownish-black from the tip of first segment. Comparative length of the segments of front tarsi as 13-6-5-2-3; of middle tarsi as 15-8-5-3-3; of hind tarsi as 15-10-6-3-3. Halteres and calypters yellow, the latter with brownish cilia.

Wings grayish hyaline, wholly without markings of any kind; veins brownish, paler near the base of wing; last portion of fifth vein evanescent, slightly less than one-half the length of posterior cross-vein.

Female.—Similar to the male in coloration. The face is about three times wider than that of the male. Bristles on the lower surface of front femora and tibiae longer and more robust than those of the male.

Described from 34 males and 44 females collected at various places on MASATIERRA, by Rev. G. Kuschel, in whose honor this species is named. The specimens were collected during the period from Feb. 20, 1951 to Feb. 6, 1952. Holotype male and allotype female, Bahía Cumberland, Feb. 25, 1951.

This species can readily be distinguished from all known *Hydrophorus* by its yellow legs.

Hydrophorus poliogaster (Phil.)

Five specimens of *H. poliogaster* were among the material submitted for identification. One male, 3 females, SANTA CLARA: Corral, Jan. 6, 1952. One female, MASATIERRA: Quebrada La Laura, March 2, 1952.

Sympycnus fernandezensis n. sp.

Male.—Length, 4 mm. Face and front silvery pollinose, the former narrow, the eyes barely contiguous on upper portion immediately below the antennae. Palpi yellow, elongate, evenly tapering to a rounded apex, equalling the length of the first segment of hind tarsi. Upper postorbital cilia black, the lateral and lower cilia are yellow. Antennae black; third segment as broad as long, obtusely rounded at apex. Arista black, evenly tapering to a sharp point, slightly longer than the first segment of middle tarsi.

Dorsum of thorax greenish, with a median bronze stripe in which the acrostical bristles are inserted, the whole metanotum lightly dusted with gray pollen. Pleurae heavily dusted with gray pollen which obscures the ground color. Scutellum with one pair of prominent marginal bristles, a pair of small, hair-like bristles situated outside the larger ones, and a number of delicate cilia upon the disc. Abdomen with the first to fourth segments yellowish, the remaining segments black. First segment with long black bristles on upper posterior margin, and long yellowish bristles on lateral posterior margins. Hypopygium rather small; outer appendages yellow, finger-like, their length equalling the width of front tibia, their tips with a few delicate brownish hairs which are as long as the appendages.

Coxae, femora and tibiae yellow. Front coxae with yellow hairs on anterior surfaces, and with yellow bristles at tip. Middle coxae with black hairs on anterior surface; hind coxae with a prominent, black bristle on outer surface. Anterior femora and tibiae somewhat thickened. Middle femora thickened on basal third, the remaining portion slender and cylindrical, bearing a short, strong preapical bristle. Middle tibiae very long and slender, bearing a conspicuous black bristle on posterior surface near the basal fifth and a smaller bristle near the middle. Hind femora long and noticeably expanded, with a prominent black preapical bristle. Hind tibiae elongated, bearing a scattering of prominent bristles on posterior surface. Front tarsi short, thickened, black from the tip of first segment which is noticeably expanded toward the tip and bears a flattened, densely-ciliated area on lower apical third; at the tip of the fifth segment projects a transversely-oval plate, borne on a slender stalk, which covers the pulvilli and claws. Middle tarsi with the first four segments slender, cylindrical, and of plain structure, the fifth segment black, flattened, and fringed

on both sides with long black hairs, so that the middle tarsi appear to end in large black discs. Hind tarsi brown from the middle of second segment, all segments fringed on posterior surface with black hair-like bristles which are longer than the width of the short, thickened first segment. Comparative length of the segments of front tarsi as 10-4-2-2-3; of middle tarsi as 16-8-10-3-12; of hind tarsi as 5-9-10-4-3. Halteres and calypters yellow, the latter with brown tips and brownish-yellow cilia.

Wings grayish hyaline, long and slender, the anal angle obsolete, so that the hind margin of the wing tapers gradually and evenly toward the base of wing; third and fourth veins parallel near their tips, the latter ending in the apex of the wing; last portion of fifth vein equal in length to the posterior cross-vein.

Female.—Face wide, silvery pollinose. Palpi black, their anterior surface clothed with black hairs. Front coxae with black hairs on anterior surface, and with black bristles at tip. Legs of plain structure. Wings broader than in the male, the anal angle more prominent, gradually and evenly rounded toward the base of wing.

Described from 19 males and 54 females collected on MASAFUERA, by Rev. G. Kuschel. Holotype male and allotype female, 9 paratype males and 17 paratype females, at Quebrada de las Casas, Jan. 19, 1952. Other paratypes: 20 females, La Correspondencia, Jan. 20, 1952; 7 males, 16 females, Quebrada de las Vacas, Jan. 17, 1952; 1 male, 1 female, Inocentes Bajos, Jan. 23, 1952; 1 male, on MASATIERRA, El Camote, Feb. 5, 1952.

This species closely resembles *S. andicola* (Bigot) in the structure of the front and middle tarsi. It differs, however, in the form of the arista. The arista of *andicola* bears two oval swellings, one slightly beyond the middle and one at tip.

Chrysotus sp.

The material submitted to me by Rev. Kuschel included also 26 female *Chrysotus* which I have been unable to specifically identify.